

Cycling answers

Your technical, legal and health questions answered by CTC's experts

THE EXPERTS



CHRIS JUDEEN
CTC Technical
Officer and
qualified engineer



PAUL KITSON
Partner at CTC's
solicitors, Russell,
Jones & Walker



**DR MATT
BROOKS**
Cycling GP

■ BRAKING DISC WORLD

Q As a long-distance cycle tourist, who can easily be 100 miles from the nearest shop, I tend to go for tried and tested technology that I know I can fix by the roadside and avoid newer kit that might not be serviceable in the back of beyond. But I'd love to know about the newer innovations in braking such as disc brakes. Am I missing a trick?

Shirley Acreman

A If roadside serviceability is important you're probably wise to avoid hydraulics. They can be fixed by any motorcycle repairer, but it's not practical to carry all the stuff you need to do it yourself.

For third-world, long-distance touring even cable discs may be a risky choice, since the special pads come in dozens of different shapes. It's too many for shops even in developed countries to keep every one in stock – compared to just three basic types of rim brake block.

Chris Juden

■ BRAKING ARE COASTERS ILLEGAL?

Q Are back-pedal or coaster brakes legal in the UK?
A As far as I understand the



“The law requires two independent braking systems, one on each wheel of a bicycle, at point of sale and when ridden on road”

requirements, bikes sold as new are required to be fitted with two independent braking systems, one on both the front and rear wheel. Some, but not all retailers, are telling me that the rear brake cannot be a coaster or back pedal brake, and must be an independent hand operated brake (for example, a V-brake).

Nathan Totty

A The law requires two independent braking systems, one on each wheel of a bicycle, at the first point of sale and also when it is ridden on the road. But it does not dictate how those brakes are operated. A brake that works by pedalling backwards is perfectly legal and BS6102 contains requirements for this kind of brake (as well as the familiar hand-operated type) with which all modern coasters comply.

The line: 'I can't sell that because it's illegal' is, however, a rather effective way of making the goods a dealer does like to sell appear much more attractive! And those legal scruples are peculiarly selective. Although a fixed-gear drive also counts as a brake, it's only a back brake. I nevertheless see fixed gear bikes offered for sale without any front brake. Now that really is illegal on the road and demonstrably unsafe!

What we have here is a prejudice based on ignorance of anything (like a coaster brake) that doesn't belong on a racing bike, as opposed to things (like fixed-gear) that do.

Chris Juden

■ LEGAL WOOF JUSTICE

Q Out on a club ride last summer, a friend of mine ran into a labrador that was running loose in the lane. The owners were about 20 yards away and didn't seem to have any real control over the dog, which was uninjured in the collision.

Even though we weren't travelling very quickly, my friend wrote off the front wheel of his bike and suffered cuts, bruises and a badly sprained wrist. It could easily have been a lot worse. My friend isn't vindictive, but we were all annoyed by the behaviour of the dog's owners – they fussed over the dog but were unconcerned about the chaos it had caused. Can my friend claim damages against the owners? If so, how?

Named and address supplied

A This seems a straightforward case of negligence. The owners of the dog should have kept it under control. If it was off a lead then they are in breach of their duty if they allowed it to run onto the highway and cause an accident.

This is a common scenario involving CTC members. I have dealt with many cases involving dogs running out from private property, farms and parkland and on to a road. I have successfully



■ HEALTH
KNEE PAIN

Q I am 70 years old and still enjoy cycling about 50 miles per week. I cycle comfortably. My legs hold out and I don't get saddle sore. However, over the past couple of years my knees have been a little painful – not cycling but walking up steps and slopes.

In January this year I gave up cycling for three months after injuring my shin, though I could still walk strongly. During this time, all trace of knee pain on stairs disappeared. Two weeks ago I recommenced cycling and the pains have returned.

I have ridden with the same standard cranks and carefully positioned seat setting for many years without trouble. I have a good, healthy diet and take vitamin supplements and also Glucosamine and Chondroitin. Can you advise me?

Roger Phillips, Prestatyn

A A common source of knee pain in cyclists is the patellofemoral joint, between the back of the kneecap (patella) and the bottom of the thigh bone (femur). The patella lies within the large quadriceps (thigh muscle) tendon, which inserts into the top of the lower leg bone (tibia). As the quadriceps straightens the leg, smooth cartilage allows the patella to glide within a groove at the bottom of the femur.

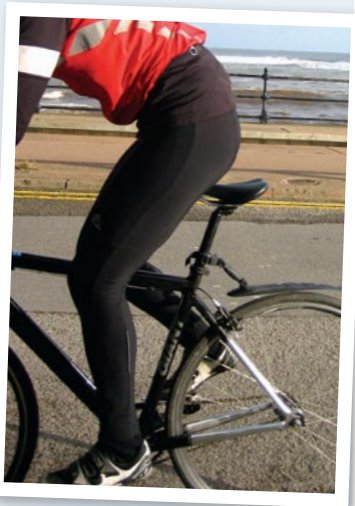
Abnormal biomechanics in the leg can cause 'maltracking' of the patella so that it doesn't run smoothly in the groove. Excessive pressure on the cartilage then leads to inflammation, pain and, eventually, breakdown of the cartilage. (Osteoarthritis, where bone is exposed, is an extreme example of this and is more common with increasing age.)

Underlying causes include an imbalance between the four quadriceps muscles pulling the patella abnormally sideways, overuse of the knee, and alignment problems e.g. knock knees or flat feet. For cyclists, pushing high gears, excessive training, saddle height, cleat position and footwear may all be factors.

Patellofemoral pain, often exacerbated by walking up or down stairs/slopes or by prolonged sitting, is usually felt around the front of the knee. It may be associated with grinding noises (crepitus). As with any persistent pain, see your doctor for an assessment first to confirm the diagnosis and identify the underlying problem. X-rays and MRI have a limited role in diagnosing patellofemoral pain but can exclude other conditions. A referral may be necessary to a physiotherapist, podiatrist or knee specialist.

A physiotherapist can provide exercises to improve the quadriceps muscle balance and demonstrate patella taping to improve tracking. Limit your mileage (climbing in particular) and use easier gears. Address foot problems such as flat feet.

Matt Brooks



Knee pain can be caused by pushing gears that are too high

recovered compensation for CTC members in this scenario.

The difficulties arise in proving the identity of the dog and the owners. If the identity issues are overcome the next problem can often be insurance.

Unless the dog owner is insured or is a person of means then it may not be worthwhile pursuing a claim for compensation because of any potential difficulties in enforcing any judgment against the dog owner. Don't forget, though, that CTC operates a free-to-members advice line for personal injury claims, tel: 0844 736 8452.

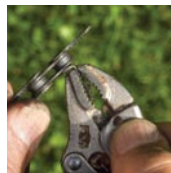
Paul Kitson

■ CHAINS
MASTER LINK

Q I've got a Sram PC951 9-speed chain and HG50 9-speed cassette on my Fuji World tourer. If the chain snapped would I be able to fix it with a powerlink without using a chain tool? Also what is the difference between a power link and a master link?

Alan Tyler

A The answers are 'yes' and 'Powerlink' is what Sram call their master links. Be sure to get the gold coloured 9-speed one. Don't forget that you will still



Take a spare Powerlink but also a means of removing a broken link, like this mini Vise Grip or a chain tool

ISLABIKES
FREE SPIRIT
www.ISLABIKES.CO.UK TEL: 01746 740835
models available for children from 2 -12 years

ISLABIKES
www.ISLABIKES.CO.UK

need some way to dispose of the remains of the broken outer link, either using a basic chain tool (e.g. those that come on a multi-tool, no need for a tight link easing facility) or a mini Vise-Grip as illustrated on the previous page. If your chain snapped, a Powerlink would be a much better way to fix it than using (just) a chain tool.

The low-profile riveting of 9-speed chains is an irreversible process. Unlike the projecting rivets of 8 (or fewer) speed chains that can be driven back and forth to separate and rejoin the links, do that to a 9 (or 10 etc.) speed rivet and it'll likely drift out again. Such a mend is temporary, a get-you-home measure. And when you get home you'll never tell which rivet it was, so the whole chain is therefore condemned.

KMC and Connex (Wipperman) chains also have master links, some

“The rivets of eight (or fewer) speed chains can be driven back and forth to separate or rejoin links. Others can’t”

of which may fit other brands of chain.

Chris Juden

LEGAL CLUB LIABILITY

Q In the event of a cycling club being sued for any reason, could the assets of individual members, whether officials or not, be sequestered to pay damages?

John Turnbull, *Anerley Bicycle Club*

A It is only possible to take legal proceedings against a ‘legal personality’.

There are two main types of legal personalities. The first category is an individual person or people. The second category is a limited company, public liability company or a firm.

A cycling club (or any other type

of members’ club) does not fall into the usual category of litigant. They are classified as unincorporated associations and in themselves do not have a legal status.

It is not possible for a club to bring litigation or to be sued as it has no legal entity. In order to issue proceedings against a club it is necessary to sue the individual members.

However, in practice it is not possible to list all the individual members and it is usual to bring proceedings against the chairman or secretary of the club and state that they are being sued in their capacity as chairman and secretary and that they are being sued as representatives of all of the other members of the club (who do not need to be named).

It is very important that a cycling club has in place a policy of insurance to protect its members against litigation. A cycling club may for example organise a time trial or a race.

If the designated route is dangerous and an individual suffers injury as a consequence of this

then potentially the club’s members could be liable. It is important that club officials carefully check their policies of insurance. Such policy should provide indemnity to club officials and members in respect of any claim.

It is also important to check the limit of indemnity. Ten years ago a personal injury claim of £3 million would be extremely rare but these days they are now much more commonplace. The indemnity limit to be on the safe side ought to be up to £5 million.

Paul Kitson

OVER TO YOU

SOLUTION TO BRAKE SQUEAL

Several factors combine to cause brake squeal, but one factor that’s always involved is a tendency of the brake block to grip more firmly as it moves with the rim than when it slides. ‘Toeing in’ the brake shoes is the usual thing to do, though it doesn’t always work and disappears as the pad wears down, requiring re-alignment from time to time and premature replacement of the unevenly worn pads.

Christopher Clay, a member from Workington Cumbria, files ‘heel slots’, using a round file of about 6mm (¼in) diameter to remove the hatched area in the diagram below (dimensions in millimetres). The resulting, smoothly rounded slot avoids any tendency for the pad to split and works like toe-in, weakening any tendency for the heel of the pad to grab the rim as the brake arm is twisted by braking force.

Christopher has found that slots like this can prevent squeal on both sidepull and cantilever brakes, making two slots (with about 6mm of rubber between them)

in the extended rear section of the long curved pads typical used with the latter –and V-brakes. He points out that slots are especially useful with brakes that don’t facilitate angle adjustment, although it’s best with just enough toe-in for the pad to align with the rim under normal braking conditions.

Although by filing it away you’re discarding potentially useful pad material, the same applies to one that’s worn on the slant due to successive toe-in adjustments. So if your brakes squeal, why not file a slot or two?

Chris Juden

